

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for isomerizing pentenenitrile in a reactant stream, wherein the isomerization of cis-2-pentenenitrile to trans-3-pentenenitrile comprising contacting a reactant stream comprising the cis-2-pentenenitrile with takes place over at least one homogeneous catalyst which is dissolved homogeneously in the reactant stream and, wherein the catalyst is a C₁-to C₂₀-mono-or-diamines monoamine or a C₁-to C₂₀-diamine, or an ionic liquid, the ionic liquid being selected from the group consisting of Brønsted acid adducts of organic nitrogen-containing substances.
2. (Currently amended) The process according to claim 1, which is carried out in an apparatus connection comprising wherein the isomerization is conducted in at least one reactor and includes at least one distillation apparatus, the reactors, if more than one reactor is used, being connected directly in series, and the distillation apparatuses, if more than one distillation apparatus is used, being connected directly in series, and the at least one distillation apparatus being connected downstream of the at least one reactor.
3. (Original) The process according to claim 1, which is carried out in more than one apparatus connection, the individual apparatus connections being connected in series and the individual apparatus connections comprising at least one reactor and at least one distillation apparatus, the reactors of the individual apparatus connections, if more than one reactor is used in the apparatus connection, being connected directly in series, and the distillation apparatuses of the individual apparatus connections, if more than one distillation apparatus is used in the particular apparatus connection, being connected directly in series, and the at least one distillation apparatus being connected downstream of the at least one reactor in the particular apparatus connection.
4. (Original) The process according to claim 1, wherein the isomerization is carried out in a distillation column.
5. (Currently amended) The process according to any of claims 1 to 4 claim 1, wherein the reactant stream further comprises further components selected from a group consisting of C5-

mononitriles, C6-dinitriles, aliphatic C1- to C16-alkanes, cyclic C1- to C16-alkanes, aliphatic C1- to C16-alkenes, and cyclic C1- to C16-alkenes.

6. (Currently amended) The process according to ~~any of claims 1 to 5~~ claim 1, wherein the reactant stream ~~stems of a process for hydrocyanating~~ is generated by the hydrocyanation of 3-pentenenitrile.

7. (New) The process according to claim 1, wherein at least one catalyst is a C₄-C₉ diamine, or hexylamine.

8. (New) The process according to claim 6, wherein at least one catalyst is a C₄-C₉ diamine, or hexylamine.